Subject: Mid Horn Throat Covering?
Posted by rkeman on Sun, 15 Jan 2012 01:32:21 GMT
View Forum Message <> Reply to Message

Could the mid horn throat be covered with black grill cloth or screening on the back of the mounting plate to keep dust and other objects away from the driver? The B&C DE250 and many other compression drivers appear to have a screen material in the horn throat that presumably does not degrade their performance. Any thoughts?

Subject: Re: Mid Horn Throat Covering?
Posted by Psychoacoustic on Sun, 15 Jan 2012 06:28:29 GMT
View Forum Message <> Reply to Message

I asked this question before and the reply was that acoustically-transparent material over the driver throat will not have an adverse effect performance.

Subject: Re: Mid Horn Throat Covering?
Posted by Wayne Parham on Sun, 15 Jan 2012 16:21:20 GMT
View Forum Message <> Reply to Message

For the midhorn throat, I would suggest something like the metal screen mesh used in prosound. You could also get a section of the mesh used as a gutter guard.

Do understand that while a screen or grille can be used without much audible difference, they usually make a slight but measurable difference. So it's important to choose the material and position carefully.

The thing about "acoustically transparent" material is it never really is. It always causes an impedance change, which in turn, causes some energy to be reflected back. This can causes ripples in response, depending on the distance from the source and the amount of reflection. The screen used in compression drivers isn't too bad because its position and material are such that it isn't objectionable.

That brings me to the reason I suggested the mesh for the midhorn. It affects the response less than a cloth, simply because the holes are larger. The very top end of its range is where the distance between the cone and the throat makes any reflection from the throat be self-cancelling. The mesh is more acoustically transparent in that range, whereas a cloth makes enough reflection to create some ripple. So go with a metal mesh if you need a protective grille on the midhorn throat.